

What Is Claimed Is:

1. A laser display device, comprising:
a laser light source generating laser beams;
an optical fiber transmitting the laser beams generated from the laser light source; and
a light phase controller forming a curve in the optical fiber, so as to control a phase of the laser beams passing through the optical fiber.
2. The device according to claim 1, wherein the laser light source includes a red laser light source, a green laser light source, and a blue laser light source.
3. The device according to claim 1, wherein the light phase controller comprises:
a piezo device;
first and second electrodes respectively formed on upper and lower surfaces of the piezo device, and providing power to the piezo device; and
first and second fixation plates formed on the first electrode to fix the optical fiber.
4. The device according to claim 3, wherein the light phase controller further comprises an elastic device for absorbing an oscillation of the optical fiber.
5. The device according to claim 4, wherein the elastic device is formed at a bottom surface of the piezo device.

6. The device according to claim 3, wherein a groove for inserting the optical fiber is formed on the first and second fixation plates.

7. The device according to claim 3, wherein the piezo device comprises:
a modifying layer being modified in accordance with a voltage applied to the first and second electrodes; and
a fixed layer formed to be in contact with the modifying layer, and bending the modifying layer.

8. The device according to claim 1, wherein a degree of a curve formed on the optical fiber changes in accordance with a size of the oscillation of the piezo device.

9. A method for controlling a laser display device, comprising:
applying a power on a piezo device;
causing an oscillation in the piezo device in accordance with the applied power; and
generating a curve in an optical fiber in accordance with the oscillation of the piezo device, and controlling a phase of a light passing through the optical fiber by the curve in the optical fiber through a light phase controller.

10. The method according to claim 9, wherein the light phase controller is formed of first and second fixation plates fixing the optical fiber.

11. The method according to claim 9, wherein the light phase controller further comprises an elastic device for absorbing the oscillation of the piezo device.

12. The method according to claim 11, wherein the elastic device is formed at a bottom surface of the piezo device.

13. The method according to claim 10, wherein a groove for inserting the optical fiber is formed on the first and second fixation plates.

14. The method according to claim 9, wherein the piezo device comprises:
a modifying layer being modified in accordance with a voltage applied to the first and second electrodes; and
a fixed layer formed to be in contact with the modifying layer, and bending the modifying layer.

15. The method according to claim 9, wherein a degree of a curve formed on the optical fiber changes in accordance with a size of the oscillation of the piezo device.